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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
|--|-------------|----------------------|---|------------------|
| 10/072,177   | 02/11/2002  | Robert E. Fischell   | APJOHN-10207  | 1327             |
| <div>7590      02/08/2007<br/>Peter G. Carroll<br/>MEDLEN &amp; CARROLL, LLP<br/>Suite 350<br/>101 Howard Street<br/>San Francisco, CA 94105</div> |             |                      | <div>EXAMINER<br/>WANG, SHENGJUN</div> <div>ART UNIT      PAPER NUMBER<br/>1617</div> |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE   |                  |
| 3 MONTHS   |             | 02/08/2007           | PAPER   |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/072,177             | FISCHELL ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Shengjun Wang          | 1617                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 5-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 23-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Receipt of applicants' amendments and remarks submitted November 11, 2006 is acknowledged.

#### *Claim Rejections 35 U.S.C. 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer et al. (US 6,726,923), in further view of Berg et al. (USPN 6,068,654).

3. Iyer describes a drug-eluting biodegradable matrix comprising rapamycin for treating anastomosis. (see col. 18-22). The matrix of Iyer is capable of being wrapped around tissues of a human body, because it is perivascularly wrapped around site of interest. The matrix of Iyer is biodegradable and stable (see col. 4, lines 10-col 5, line 40). Iyer encourages the use of other anti-inflammatory such as dexamethasone with rapamycin. (col. 6, lines 55-67). The matrix is particularly useful for wrapping T-shaped vascular vessel joint, wherein the matrix cover the joint as a sleeve. See, particularly, figures 6-13 and column 13, lines 14-20. As it is obvious, a centrally-located hole for placement onto a vessel is taught. See, figures 1-3, and columns 12, lines 7-58.

4. Iyer et al. do not teach expressly a matrix with annular shape and radial edge.

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However, as revealed by Berg et al., T-shaped Joint location of vascular vessel is normally in the shape of a circle, and the connector of the joint is in the shape of annular. See, the figures.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to make the matrix of Iyer into an annular wrap with radial edge, as the annular shape would have been a obvious variation of the square shape disclosed by Iyer, particularly in view of the fact that the T-shaped vascular vessel joint is normally in the shape of a circle. As to claims 23 and 24, reciting slit or cut extending toward the edge, it is noted the optimization of the physical shape of the wrap so to accommodate the shape of the vascular vessel being wrapped is a matter of engineering optimization and would have been within the purview of ordinary skill in the art.

5. Claims 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer et al. (US 6,726,923), in further view of Casey (USPN 3,902,497).

6. Iyer's teaching have been discussed above. Iyer et al. do not teach expressly the biodegradable material be oxidized regenerated cellulose.

7. However, Casey teaches that oxidized regenerated cellulose is a well-known biodegradable material absorbable in tissues. See, column 2, lines 38-42.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to make the matrix of Iyer et al. by using the oxidized regenerated cellulose as the biodegradable material because oxidized regenerated cellulose is a well-known biodegradable, bioabsorbable material, and the employment of oxidized regenerated

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cellulose is seen to be a selection from amongst equally suitable material and as such obvious.

Ex parte Winters 11 USPQ 2<sup>nd</sup> 1387 (at 1388).

***Response to the Arguments***

Applicants' amendments and remarks submitted November 11, 2006 have been fully considered, but are moot in view of the new ground of rejections.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Shengjun Wang  
Primary Examiner  
Art Unit 1617

SHENGJUN WANG  
PRIMARY EXAMINER